

ABSTRACT

The invention relates to investment casting shell molds and their method of manufacture. The method entails mixing fiber such as ceramic refractory fiber and organic fiber with ceramic filler to form a dry blend. The dry blend is mixed 5 with a binder sol such as colloidal silica sol to form slurry. An expendable preform is dipped into the slurry, stuccoed and dried. This step is repeated until a ceramic shell of a desired thickness is formed over the expendable preform. The expendable preform then is removed, and the green ceramic shell is fired. Molten metal then may be poured into the shell to form a metal casting.

10